

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

Conditional Major draft No. F-02-022

PELLA CORPORATION

MURRAY, KY

August 30, 2002

DOROTHY NGUYEN, REVIEWER

Plant I.D. # 021-035-00045

Application Log # 54808 and 54809

**SOURCE DESCRIPTION:**

Pella Corporation-Murray Operations is located at 307 Pella Way, Murray, Kentucky in Calloway County. This facility will manufacture windows and window frames.

Pella Corporation-Murray Operations has applied to construct a new manufacturing plant in Murray, Kentucky. This plant consists of the following:

**PULTRUSION PLANT**

EP01: Pultrusion process-Pultrusion process consists of 21 pultruders.

EP02: Chop saw operations - This emission point encompasses a variety of cutting devices (up to 200 devices) including abrasive wheel saws, chop saws, miter saws, routers and drills.

EP03: Powder coating.

EP04: Conductive coating- there is three-stage washer, conductive coating system, and dry off oven.

EP05: Glass cleaner- recirculating water bath with isopropyl alcohol glass cleaner.

EP06: Five (5) Assembly Lines-Sealants and caulks are used to construct insulated glass assemblies, to mate glass to support frame, and to surfaces to prevent the accumulation of water. Sealants and caulks are a paste like material that cures in the presence of air.

MP01: Maintenance activities

EP07: Pellamat-drying chambers.

**VINYL PLANT**

EP08 Chop saw operations-(up to 40 devices)

EP09 Glass cleaner- recirculating water bath with isopropyl alcohol glass cleaner.

EP10: Insulated glass, sealants and caulks. The vinyl product uses a very different sealing system than the molding window. The insulating glass is purchased as a unit eliminating that sealant. A two sided adhesive tape is used in place of normal caulk/sealant. VOC emissions are estimated at 10% of those for the pultrusion window.

MP01: Maintenance activities.

**COMMENTS:**

There is no VOC control equipment in the facility.

The plant is a potentially major source for VOC and, HAP (styrene). The total potential to emit (PTE) volatile organic compound (VOC) for this plant is approximately 142 tpy. The requested allowable is 90.0 tpy VOC for the plant wide. Potential styrene emissions are over 10 tpy. The requested allowable is 9.0 tpy for styrene emission and 22.5 for combined HAPs.

The emission calculations are provided by the source. Since this is a initial construction facility in Murray, Kentucky, the emission calculations for emission points EP02-EP07 are based on the output (production unit such as windows and window frames) of EP01. Styrene emission factor for the EP01 using direct injection is based on the Pultrusion Industry Council (PIC), Phase II Data.

**COMMENTS(CONTINUED):**

The emission factors for the ovens are from AP-42.

Emission factors for the plantwide is based on the production unit of 5E6 windows/window frames.

**APPLICABLE REGULATIONS:**

**40 CFR Part 63**, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastics Composites Production; Proposed Rule, Section 112 (g or j), maximum achievable control technology (MACT), case by case determination, applies to each new or existing affected source at reinforced plastic composites production facilities on which construction commenced after August 2, 2001. The source opted to limit the HAP emission to less than 9.0 TPY for any individual HAP and 22.5 TPY for combined HAPs, therefore 40 CPR Part 63 does not apply.

**EMISSION AND OPERATING CAPS DESCRIPTION:**

The source opted to limit the HAP emission to less than 9.0 TPY for any individual HAP and 22.5 TPY for combined HAPs to preclude the applicability of 40 CFR Part 63.

Total VOC emissions shall not equal or exceed 90.0 tons per year to preclude the applicability of Title V.

**PERIODIC MONITORING:**

Monthly summary reports generated from the material purchase records or logs maintained by the facility may be used to demonstrate compliance with the annual specified production rates and annual emissions. Monthly summary reports and logs shall be submitted to the Division semiannually to demonstrate compliance and upon request.

**OPERATIONAL FLEXIBILITY:** NA

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.